

January 24, 2006

Mr. Mark B. Bezilla
Vice President-Nuclear, Davis-Besse
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
Mail Stop A-DB-3080
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - RESPONSE TO NRC
BULLETIN 2003-02, "LEAKAGE FROM REACTOR PRESSURE VESSEL
LOWER HEAD PENETRATIONS AND REACTOR COOLANT PRESSURE
BOUNDARY INTEGRITY" (TAC NO. MC0535)

Dear Mr. Bezilla:

On August 21, 2003, the Nuclear Regulatory Commission (NRC) issued NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity," to the industry. This bulletin informed addressees that current methods of inspecting the reactor pressure vessel (RPV) lower heads may need to be supplemented with bare-metal visual inspections in order to detect reactor coolant pressure boundary leakage and requested these addressees to provide the NRC with information related to inspections that have been performed to verify the integrity of the RPV lower head penetrations.

The bulletin requested that addressees provide a description of the RPV lower head penetration inspection program that would be implemented at their respective plants during the next and subsequent refueling outages. This description was to include the extent of the inspection, the inspection methods to be used, the qualification standards for the inspection methods, the process used to resolve the source of findings of boric acid deposits or corrosion, the inspection documentation to be generated, and the basis for concluding that their plant satisfied applicable regulatory requirements related to the structural and leakage integrity of the RPV lower head penetrations.

By letter dated November 19, 2003, FirstEnergy Nuclear Operating Company (FirstEnergy) provided its response to this request for Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse). Because Davis-Besse had been in an extended outage since February 16, 2002, FirstEnergy wanted to take credit for the bare-metal visual examination that was performed in September 2003. In its same response, FirstEnergy committed to performing a visual examination, consisting of a complete 360-degree examination of each RPV lower head penetration during the Cycle 14 mid-cycle outage (January 2005) at Davis-Besse.

The bulletin also requested that addressees provide a summary of the RPV lower head penetration inspection that was performed at their plants, the extent of the inspection and the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

In its letter dated November 19, 2003, FirstEnergy provided a summary of the results of its inspection performed in September 2003 at Davis-Besse. FirstEnergy increased the reactor coolant system pressure to a normal operating pressure of approximately 2155 psig for a period of approximately one week. After this pressure test, FirstEnergy used a crawler video camera to perform a 360-degree bare-metal visual examination at each RPV lower head penetration. Because the RPV lower head had already been cleaned as part of a baseline inspection performed in May 2003, FirstEnergy was able to compare the results of this inspection with the results of the May 2003 baseline inspection. FirstEnergy did not observe any evidence of RPV lower head penetration leakage.

On March 8, 2004, the NRC staff issued a letter that approved the restart of Davis-Besse. Included within this letter was Confirmatory Order EA-03-214 that directed FirstEnergy to conduct a visual examination of the RPV lower head bare-metal surface, including the head to penetration interfaces, using VT-2 qualified personnel and procedures during the Cycle 14 mid-cycle outage. Prior to restart from the mid-cycle outage, FirstEnergy was required to report the results of this inspection to the Regional Administrator, NRC Region III and to report any evidence of reactor coolant boundary leakage found during this inspection.

In response to Confirmatory Order EA-03-214, FirstEnergy provided a summary of its inspection results on February 3, 2005. FirstEnergy reported that, during the Cycle 14 mid-cycle outage that occurred during January 2005, it had completed visual examination of the RPV lower head bare-metal surface, including the head to penetration interfaces. FirstEnergy did not find any evidence of reactor coolant boundary leakage at Davis-Besse. The March 23, 2005, NRC Integrated Inspection Report noted that no reactor coolant boundary leakage was observed.

Based on its review of FirstEnergy's responses to NRC Bulletin 2003-02, the NRC staff finds that FirstEnergy has met the reporting requirements of the bulletin. Accordingly, TAC No. MC0535 is closed for Davis-Besse.

Sincerely,

/RA/

Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

cc: See next page

In its letter dated November 19, 2003, FirstEnergy provided a summary of the results of its inspection performed in September 2003 at Davis-Besse. FirstEnergy increased the reactor coolant system pressure to a normal operating pressure of approximately 2155 psig for a period of approximately one week. After this pressure test, FirstEnergy used a crawler video camera to perform a 360-degree bare-metal visual examination at each RPV lower head penetration. Because the RPV lower head had already been cleaned as part of a baseline inspection performed in May 2003, FirstEnergy was able to compare the results of this inspection with the results of the May 2003 baseline inspection. FirstEnergy did not observe any evidence of RPV lower head penetration leakage.

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Based on its review of FirstEnergy's responses to NRC Bulletin 2003-02, the NRC staff finds that FirstEnergy has met the reporting requirements of the bulletin. Accordingly, TAC No. MC0535 is closed for Davis-Besse.

Sincerely,

/RA/

Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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